

[illegible]

3

Sy

MT

MT

MT

MT  
MT

MT  
MT

MT  
MT

MT  
MTMT  
MT

MT

MT

MT

MT

MT  
MT

MT  
MT

MT  
MTMT  
MT

MT

MT

MT

MI

MT  
MT

MT  
MTMT  
MT

MT

M1  
M2

W1  
W1  
W1

41  
 42

M1

1

1

1

1

1

—

```
MM      MM      TTTTTTTTTT  HH      HH  DDDDDDDDD  MM      MM      AAAAAA  XX      XX      11
MM      MM      TTTTTTTTTT  HH      HH  DDDDDDDDD  MM      MM      AAAAAA  XX      XX      11
MMM     MMM     TT          HH      HH  DD      DD  MMM     MMM     AA      AA  XX      XX      1111
MMM     MMM     TT          HH      HH  DD      DD  MMM     MMM     AA      AA  XX      XX      1111
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HHHHHHHHHH DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HHHHHHHHHH DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AAAAAAAAAA XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AAAAAAAAAA XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DDDDDDDDD  MM      MM      AA      AA  XX      XX      111111
MM      MM      TT          HH      HH  DDDDDDDDD  MM      MM      AA      AA  XX      XX      111111

LL      IIIIIII  SSSSSSSS
LL      IIIIIII  SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLL  IIIIIII  SSSSSSSS
LLLLLLLLLLL  IIIIIII  SSSSSSSS
```

MTD  
Syn  
MTD  
  
PSE  
---  
\_M1  
  
Pha  
---  
Int  
Con  
Pas  
Syn  
Pas  
Syn  
Pse  
Cro  
Ass  
  
The  
140  
The  
140  
0 p  
  
Mac  
---  
\_S2  
0 c  
The  
MAC

(2)	50	HISTORY	; Detailed Current Edit History
(3)	59	DECLARATIONS	
(4)	91	MTHSDMAX1	

```
0000 1      .TITLE MTHSDMAX1      DMAX1 function
0000 2      .IDENT /1-002/        ; File: MTHDMAX1.MAR
0000 3
0000 4
0000 5 *****
0000 6 *
0000 7 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
0000 8 *  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
0000 9 *  ALL RIGHTS RESERVED.
0000 10 *
0000 11 *  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
0000 12 *  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
0000 13 *  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
0000 14 *  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
0000 15 *  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
0000 16 *  TRANSFERRED.
0000 17 *
0000 18 *  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
0000 19 *  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
0000 20 *  CORPORATION.
0000 21 *
0000 22 *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 23 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 *
0000 25 *
0000 26 *****
0000 27
0000 28
0000 29 FACILITY: MATH LIBRARY
0000 30 ++
0000 31 ABSTRACT:
0000 32     This module contains MTHSDMAX1:
0000 33     Return the maximum of n double-precision floating-point values.
0000 34
0000 35
0000 36 --
0000 37
0000 38 VERSION: 0
0000 39
0000 40 HISTORY:
0000 41
0000 42 AUTHOR:
0000 43     Jonathan M. Taylor, 14-JUL-77: Version 0
0000 44
0000 45 MODIFIED BY:
0000 46
0000 47
0000 48
```



MTHSDMAX1  
1-002

K 8  
DMAX1 function 16-SEP-1984 01:18:23 VAX/VMS Macro V04-00  
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:22:18 [MTHRTL.SRC]MTHDMAX1.MAR;1 Page 2  
(2)  
0000 50 .SBTTL HISTORY ; Detailed Current Edit History  
0000 51  
0000 52  
0000 53 ; Edit History for Version 0 of MTHSDMAX1  
0000 54 :  
0000 55 : 0-4 - remove MTH\$FLAG\_JACKET. TNH 26-July-78  
0000 56 : 1-001 - Update version number and copyright notice. JBS 16-NOV-78  
0000 57 : 1-002 - Add "\_" to the PSECT directive. JBS 22-DEC-78

MT  
3-

```

0000 59      .SBTTL  DECLARATIONS
0000 60
0000 61 :
0000 62 : INCLUDE FILES:
0000 63 :   oerr.mar
0000 64 :
0000 65 :
0000 66 :
0000 67 :
0000 68 : EXTERNAL SYMBOLS:
0000 69 :   NONE
0000 70 :
0000 71 :
0000 72 :
0000 73 : MACROS:
0000 74 :   NONE
0000 75 :
0000 76 :
0000 77 :
0000 78 : PSECT DECLARATIONS:
00000000 79 :   .PSECT  _MTH$CODE      PIC, SHR, LONG, EXE, NOWRT
0000 80
0000 81 :
0000 82 : EQUATED SYMBOLS:
0000 83 :   NONE
0000 84 :
0000 85 :
0000 86 :
0000 87 : OWN STORAGE:
0000 88 :   NONE
0000 89 :

```

```
0000 91 .SBTTL MTH$DMAX1
0000 92
0000 93 :++
0000 94 : FUNCTIONAL DESCRIPTION:
0000 95 : Returns the maximum of n arguments, n is greater or equal to 1.
0000 96 :
0000 97 :
0000 98 : CALLING SEQUENCE:
0000 99 : Maximum.wd.v = MTH$DMAX1 ({arg.rd.r})
0000 100 :
0000 101 :
0000 102 :
0000 103 : INPUT PARAMETERS:
0000 104 : The n input parameters are double-precision floating-point
0000 105 : values and are call-by-reference.
0000 106 :
0000 107 :
0000 108 : IMPLICIT INPUTS:
0000 109 : NONE
0000 110 :
0000 111 : OUTPUT PARAMETERS:
0000 112 : NONE
0000 113 :
0000 114 : IMPLICIT OUTPUTS:
0000 115 : NONE
0000 116 :
0000 117 : COMPLETION CODES:
0000 118 : NONE
0000 119 :
0000 120 : SIDE EFFECTS:
0000 121 : Reserved Operand exception can occur.
0000 122 :
0000 123 :
0000 124 :--
0000 125
52 6C 0004 0000 126 .ENTRY MTH$DMAX1, ^M<R2>
8C D5 0002 127 MOVZBL (AP), R2 ; R2 = arg count
50 9C 0005 128 TSTL (AP)+ ; AP -> first arg
08 11 0007 129 1$: MOVD @ (AP)+, R0 ; R0/R1 = trial max
000A 130 BRB 3$ ; check arg count
000C 131
50 00 BC 71 000C 132 2$: CMPD @0 (AP), R0 ; if this arg is greater than trial max
F5 14 0010 133 BGTR 1$ ; then it becomes trial max
8C D5 0012 134 TSTL (AP)+ ; else ignore it
F5 52 F5 0014 135 3$: SOBGTR R2, 2$ ; return if arg count exhausted
04 0017 136 RET
0018 137
0018 138 .END
```

MTH\$DMAX1  
Symbol table

DMAX1 function

N 8

16-SEP-1984 01:18:23 VAX/VMS Macro V04-00  
6-SEP-1984 11:22:18 [MTHRTL.SRC]MTHDMAX1.MAR;1

Page 5  
(4)

MTH\$DMAX1 00000000 RG 01

-----  
! Psect synopsis !  
-----

PSECT name	Allocation	PSECT No.	Attributes															
ABS	00000000	( 0.)	00 ( 0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE				
MTH\$CODE	00000018	( 24.)	01 ( 1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG				

-----  
! Performance indicators !  
-----

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.09	00:00:00.37
Command processing	125	00:00:00.58	00:00:04.00
Pass 1	69	00:00:00.40	00:00:02.16
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	40	00:00:00.36	00:00:01.37
Symbol table output	1	00:00:00.01	00:00:00.01
Psect synopsis output	3	00:00:00.01	00:00:00.19
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	270	00:00:01.45	00:00:08.11

The working set limit was 750 pages.  
1387 bytes (3 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 1 non-local and 3 local symbols.  
138 source lines were read in Pass 1, producing 10 object records in Pass 2.  
0 pages of virtual memory were used to define 0 macros.

-----  
! Macro library statistics !  
-----

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:MTHDMAX1/OBJ=OBJ\$:MTHDMAX1 MSRC\$:MTHDMAX1/UPDATE=(ENH\$:MTHDMAX1)



0259 AH-BT13A-SE  
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION  
CONFIDENTIAL AND PROPRIETARY

MTHDCOSH  
LIS

MTHDMINI  
LIS

MTHDLOG  
LIS

MTHDSINCO  
LIS

MTHDATANH  
LIS

MTHDINT  
LIS

MTHDSORT  
LIS

MTHDCONIG  
LIS

MTHDINT  
LIS

MTHMAXI  
LIS

MTHDSIGN  
LIS

MTHDIM  
LIS

MTHMOD  
LIS

MTHDSINH  
LIS

MTHDEXP  
LIS

MTHDFLOOR  
LIS

MTHOPROD  
LIS